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09/607,069

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EXAMINER

FISHER, MICHAEL J

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Please find below and/or attached an Office communication concerning this application or proceeding.

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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
6

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8 *Ex parte* JIE CHENG,
9 ROSE PENG, and
10 YI LU
11

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13 Appeal 2009-012016
14 Application 09/607,069
15 Technology Center 3600
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18 Before ANTON W. FETTING, JOSEPH A. FISCHETTI, and
19 BIBHU R. MOHANTY, *Administrative Patent Judges*.
20 FETTING, *Administrative Patent Judge*.

21 DECISION ON APPEAL¹
22

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE²

Jie Cheng, Rose Peng, and Yi Lu (Appellants) seek review under 35 U.S.C. § 134 (2002) of a final rejection of claims 23-24 and 26-41, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

The Appellants invented methods for estimating/predicting a used vehicle's market value. Specification 1:4-5.

An understanding of the invention can be derived from a reading of exemplary claim 23, which is reproduced below [bracketed matter and some paragraphing added].

23. A computer-implemented method for estimating market value of a used vehicle, the method comprising:

A) electronically receiving data from a nearest neighbor database consisting of a number K of used vehicle nearest neighbor records, each used vehicle nearest neighbor record comprising resale information and a plurality of used vehicle features, at least one target used vehicle record comprised of a plurality of used vehicle features, at least one constraint for determining a neighbor relationship between a pair of used vehicles, and a neighborhood distance function for determining a distance between a pair of used vehicles, the number K is

² Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed December 7, 2005) and the Examiner's Answer ("Ans.," mailed February 3, 2006), and Final Rejection ("Final Rej.," mailed July 8, 2005).

1 iteratively selected for estimation accuracy based on a historical
2 database of N used vehicle records; and

3 B) electronically determining an estimated value for the at least
4 one target used vehicle based on the data from the nearest
5 neighbor database, the at least one target used vehicle record,
6 the at least one constraint, and the neighborhood distance
7 function, wherein the estimated value of the at least one target
8 used vehicle is relied upon by individuals to at least price used
9 vehicles for resale.

10
11 EVIDENCE RELIED UPON

12 Yi Lu, *Declaration under 37 C.F.R. § 1.132*. March 4, 2004. (Lu
13 Declaration)

14
15 Claims 23-24 and 26-41 stand rejected under 35 U.S.C. § 112, first
16 paragraph, as failing to comply with the enablement requirement.

17
18 ISSUES

19 The issue of whether the Examiner erred in rejecting claims 23-24 and
20 26-41 under 35 U.S.C. § 112, first paragraph, as failing to comply with the
21 enablement requirement turns on whether the specification of the claimed
22 invention describes the invention such that a person with ordinary skill in the
23 art would have understood how to make and use the claimed invention
24 without undue experimentation.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Appellants' Disclosure

01. The neighborhood is a subset of vehicles selected from a historical database where each vehicle satisfies neighbor constraints, such as vehicle model, series, and year. Specification 6:13-20.

02. Distance functions are formulas which map or correlate a difference in features or vehicle contents between a pair of vehicles to an amount of used vehicle resale value. Specification 8:22-26. For example, a difference of 1,000 miles between two vehicles results in a difference of \$75 in resale value. Specification 8:26-28.

03. Estimating a used vehicle's market value requires the input of (1) a historical database of used vehicles, (2) a set of neighbor constraints or maximum acceptable difference for a pair of vehicles to be considered neighbors, (3) a coverage constraint percentage requirement, (4) neighborhood distance functions, and (5) a set of used vehicles whose market value is to be estimated. Specification 7:21-30 and 8:1-4. All vehicles that satisfy the neighbor constraints are found and segregated into a subset. Specification 12:16-19. The distance between each neighbor vehicle in the subset is determined, where only a K number of neighbors are selected. Specification 12:19-22. The market value

1 estimation is calculated by adjusting the value of each neighbor by
2 a market value dollar amount determined using the distance
3 function. Specification 13:5-9. A distance-weighted average of
4 all market value estimations is computed to generate a final
5 estimate for the targeted vehicle. Specification 13:9-12. For
6 example, in a similar manner as described above, if there are three
7 neighbors V1, V2 and V3 and the distances are d1, d2 and d3,
8 respectively, then the weights for V1, V2 and V3 are $V1 = D1/(D1$
9 $+ D2 + D3)$, $V2 = D2/(D1 + D2 + D3)$, $V3 = D3/(D1 + D2 + D3)$ where
10 $D1 = (d1 + d2 + d3)/d1$, $D2 = (d1 + d2 + d3)/d2$ and $D3 = (d1 + d2$
11 $+ d3)/d3$. Specification 13:12-16.

12 04. Resale plan information includes the resale time, region, and
13 resale channel. Specification 9:7-8.

14
15 ANALYSIS

16 *Claims 23-24 and 26-41 rejected under 35 U.S.C. § 112, first*
17 *paragraph, as failing to comply with the enablement requirement*

18 The Examiner found that a person with ordinary skill in the art would
19 not have know what to use as a “constraint for determining a neighbor
20 relationship,” what to use as a “neighborhood distance function,” how to use
21 this unknown function for “determining a distance between a pair of used
22 vehicles,” or how to “determining an estimate value...based on the data
23 from the nearest neighbor database” and therefore claims 23-24 lack
24 enablement. Ans. 3. The Appellants contend that these features are

1 described such that a person would have been enabled to make or use the
2 claimed invention on pages 6-8 and 12-13 of the Specification.

3 We agree with the Appellants. “[T]o be enabling, the specification of a
4 patent must teach those skilled in the art how to make and use the full scope
5 of the claimed invention without ‘undue experimentation.’” *In re Wright*,
6 999 F.2d 1557, 1561 (Fed. Cir. 1993). The Specification provides examples
7 of typical neighbor constraints, such as key vehicle features including
8 model, series, and model year. FF 01. The method for estimating the
9 market value of a vehicle uses these neighbor constraints or maximum
10 acceptable differences between vehicles as a neighbor relationship. FF 01.
11 The Specification further describes using a difference in distance as a
12 neighborhood distance function and a neighborhood distance functions are
13 formulas that correlate a difference in features between a pair of vehicles to
14 a resale amount. FF 02. The Specification also describes determining an
15 estimate for a targeted vehicle using a historical database and neighborhood
16 distance functions. FF 03. As such, the Specification discloses each of the
17 alleged features sufficient to enable a person with ordinary skill art. The
18 Examiner argues that a person with ordinary skill in the art would the K
19 number of neighbors to select (Ans. 7); however, a person with ordinary
20 skill in the art of vehicle value determination would not require undue
21 experimentation in determining the K number of vehicles to select. This is
22 well within ordinary skill in the art. As such, the Specification enables a
23 person with ordinary skill in the art to make or use the claimed invention.

24 The Examiner also found that a person with ordinary skill in the art is
25 not enabled to “determine a weighted estimate value...based on the data,” as
26 per claim 26. Ans. 3-4. The Appellants contend that the Specification

1 describes this feature such that a person with ordinary skill in the art is
2 enabled to make or use the claimed invention. App. Br. 7. We agree with
3 the Appellants. The Specification explicitly describes determining a
4 weighted estimate value such that a person with ordinary skill in the art
5 would be enabled. The Examiner has not provided any further rationale as
6 to how this limitation is not enabled.

7 The Examiner additionally found that a person with ordinary skill in the
8 art is not enabled to use the limitation of “resale plan information,” as per
9 claim 31. Ans. 4. The Appellants contend that the Specification discloses
10 this term sufficiently to provide enablement. App. Br. 4. We agree with the
11 Appellants. The Specification discloses that target vehicles contain detailed
12 descriptions of the features and contents including the vehicle’s intended
13 resale time, region, and channel. FF 04. The intended resale information is
14 the intended resale plan information. FF 04. As such, the Specification
15 sufficiently discloses this term to satisfy 35 U.S.C. § 112, first paragraph.

16 The Examiner further found that claims 33, 35, and 36 fail to enable the
17 variables required by the claimed formulae. Ans. 4. The Appellants contend
18 that the parameters of the formulae are adequately described on pages 7-9
19 and a person with ordinary skill in the art understands how to use the
20 assigned variable names in claims 33, 35, and 36 as per the Lu declaration.
21 App. Br. 7-13. We agree with the Appellants. The Specification discloses
22 definitions for each of the parameters and a person with ordinary skill in the
23 art would have understood how to use and assign values to the variables as
24 needed. This is further evidenced by the Lu Declaration ¶’s 6-7.
25 Furthermore, the Appellants’ arguments in support of claims 33, 35, and 36
26 fully articulate the meaning for each variable and how a person with

1 ordinary skill in the art is enabled to use the claimed formulae. App. Br. 7-
2 13. Although the Examiner argues that a person with ordinary skill in the art
3 would not be enabled to use the formulae because specific parameters are
4 would not be known such as “how many are in a group of the nearest
5 neighbor vehicle” (Ans. 8); we find that assigning values to these parameters
6 based on the disclosure of the specification and definitions of the formulas is
7 within ordinary skill in the art. As such, a person with ordinary skill in the
8 art would have been enabled to use or make the claimed invention.

9
10 **CONCLUSIONS OF LAW**

11 The Examiner erred in rejecting claims 23-24 and 26-41 under 35 U.S.C.
12 § 112, first paragraph, as failing to comply with the enablement requirement.

13
14 **DECISION**

15 The rejection of claims 23-24 and 26-41 under 35 U.S.C. § 112, first
16 paragraph, as failing to comply with the enablement requirement is not
17 sustained.

18 No time period for taking any subsequent action in connection with this
19 appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.
20 § 1.136(a)(1)(iv) (2007).

21
22 **REVERSED**

Appeal 2009-012016
Application 09/607,069

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